



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/400,609	09/20/1999	HASSAN HAGIRAHIM	HAGIRAHIM5-4	3602

7590 09/18/2003

HARNESS DICKY & PIERCE PLC  
P O BOX 8910  
RESTON, VA 20195

EXAMINER

SWICKHAMER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
----------	--------------

2697

DATE MAILED: 09/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/400,609

Applicant(s)

HAGIRAHIM ET AL.

Examiner

Christopher M Swickhamer

Art Unit

2697

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-10,13-17 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-10,13-17 and 20-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 16 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2697

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to the RCE filed 07/16/03. Claims 2, 5, 6, 11, 12, 18, and 19 have been cancelled. The amendments to claims 1, 8, 13, and 20 have been entered. Claims 1, 3, 4, 7-10, 13-17, 20-29 are pending. Currently no claims are in condition for allowance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Keshav et al (USP 5,623,605). Referring to claim 1, Keshav discloses a system for transporting ATM cells over an IP backbone network (Fig. 4, col. 2, lns. 59-col. 3, lns. 2), the ATM cells inherently including an ATM destination address, the system comprising: a source gateway interconnected to the IP backbone network, said source gateway with an encapsulator operable to encapsulate ATM cells within IP headers which inherently have TCP/IP headers(at least one of a TCP/IP or UDP/IP headers) to form IP packets (col. 6, lns. 40-48, col. 11, lns. 59-col. 12, lns. 6); and transmit an IP signaling message for a connection request to said connection manager (controller) between the source and destination gateways through the IP stack interfaces upon

Art Unit: 2697

receipt of an ATM signaling message for requesting a connection from a remote client program operating on the ATM network (Fig. 4, col. 8, lns. 18-53).

- Referring to claim 3, Keshav discloses the system of claim 2 wherein the ATM signaling message is an ATM UNI signaling message (col. 6, lns. 5-11). The connection manager uses a routine described in the ATM UNI forum. This would inherently use ATM UNI signaling messages to setup the connection from the ATM network across the IP network.

- Referring to claim 7, Keshav discloses the system of claim 1 wherein said source gateway transmits an ATM UNI signaling message via an Internet Protocol (intermediate protocol) to a destination gateway upon receipt of a signaling message from said connection manager (controller, col. 8, lns. 43-53). The remote client operating on the ATM network sends a connection request to the connection manager, which forwards the request across the IP network to application program B running on the destination gateway.

- Referring to claim 8, Keshav discloses a system for transporting ATM signaling cells and ATM bearer cells over an IP backbone network (Fig. 4, col. 2, lns. 59-col. 3, lns. 2), the ATM cells inherently including an ATM destination address, the system comprising: a source gateway interconnected to the IP backbone network, said source gateway operable to encapsulate the received ATM bearer cells with IP headers which inherently contain TCP/IP headers (at least one of a TCP/IP or UDP/IP headers) to form to IP packets; wherein said source gateway transmits an IP signaling packet to a connection manager (controller) between source and destination gateways through the IP stack interfaces upon receipt of ATM signaling cells to setup a connection request between a remote client operating on the ATM network, across an IP network to a server (col. 8, lns. 5-54, lns. 61-col. 9, lns. 10).

Art Unit: 2697

- Referring to claim 9, Keshav discloses the system of claim 8 wherein the ATM signaling cells are ATM UNI signaling messages (col. 6, lns. 5-11). The connection manager uses a routine described in the ATM UNI forum. This would inherently use ATM UNI signaling messages to setup the connection.

- Referring to claim 13, Keshav discloses a method for transporting ATM cells over an IP backbone network, said method comprising the steps of: receiving an ATM signaling cell at a source gateway (Fig. 4, col. 8, lns. 5-54, col. 11, lns. 59-col. 12, lns. 6); converting the ATM signaling cell to an IP signaling packet which inherently contains a TCP/IP header (using at least one of TCP/IP or UDP/IP protocol, col. 8, lns. 5-54, col. 12, lns. 6-60); translating a VCI address in the ATM signaling cell to a corresponding IP address (col. 9, lns. 20-53, col. 12, lns. 6-43); receiving ATM bearer cells at the source gateway; encapsulating ATM bearer cells with IP headers to form IP packets; and transmitting the IP packets onto an IP backbone network (col. 9, lns. 20-53, col. 12, lns. 6-60). The system of Keshav sets up the connection by sending the appropriate IP packet signals between the connection manager of the source gateway and the destination gateway. Following this the encapsulator and decapsulator of the respective gateways send the ATM cells that have been encapsulated into IP packets over the IP network to the destination gateway.

- Referring to claim 14, Keshav discloses the method of claim 13 wherein the step of translating comprises the further steps of: transmitting an ATM destination address in the ATM cell to a connection manager (controller); receiving a corresponding IP address from the connection manager (controller, col. 9, lns. 20-53). The connection manager has a mapping list between VCI values and IP addresses.

- Referring to claim 16, Keshav discloses the method of claim 13 including the further steps of transmitting a signaling message to a destination gateway corresponding to the translated IP address (col. 9, lns. 20-35). The VCI value is mapped to an IP address of the destination gateway.

- Referring to claim 24, Keshav discloses the system of claim 1, further comprising a destination gateway interconnected to the IP backbone network, said destination gateway operable to receive IP packets from said IP backbone network and decapsulate the ATM cells from the IP packets (Fig. 4, col. 3, lns. 3-15).

- Referring to claim 25, Keshav discloses the system of claim 1, further comprising a connection manager (controller) interconnected to the IP backbone network, said connection manager (controller) operable to translate the ATM destination address to a corresponding destination gateway address (Fig. 4, col. 9, lns. 45-50).

- Referring to claim 26, Keshav discloses the system of claim 8, further comprising a destination gateway interconnected to the IP backbone network, said destination gateway operable to receive the IP packets and decapsulate the ATM bearer cells from the IP packets (col. 3, lns. 3-15).

- Referring to claim 27, Keshav discloses the system of claim 8, further comprising a connection manager (controller) interconnected to the IP backbone network, said connection manager (controller) operable to translate the ATM destination address to the corresponding destination gateway (Fig. 4, col. 9, lns. 45-50).

- Referring to claim 22, Keshav discloses the method claim 21, further comprising a destination gateway interconnected to the IP backbone network, said destination gateway

Art Unit: 2697

operable to receive IP packets from said IP backbone network and decapsulate the ATM cells from the IP packets (col. 3, lns. 3-15).

- Referring to claim 23, Keshav discloses the method of claim 21, further comprising a connection manager (controller) interconnected to the IP backbone network, said connection manager (controller) operable to translate the ATM destination address to a corresponding destination gateway address (Fig. 4, col. 9, lns. 45-50).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, 10, 15, 20, 21, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keshav in view of the ITU-T H.323 standard titled *Line Transmission of Non-Telephone signals* (hereinafter ITU-T H.323).

- Referring to claim 4, 10 and 15, Keshav discloses the system of claim 2, 8 and 14, but does not expressly disclose wherein the IP signaling message follows the H.323 protocol. The H.323 standard teaches that H.323 was developed to transmit multimedia information over networks that do not provide guaranteed quality of service, such as the Internet. The Internet is used to transport IP packets. A type of network that does have quality of service guarantees is ATM. H.323 terminals are used to carry time sensitive information, such as real-time voice,

Art Unit: 2697

data, and video. H.323 makes use of the logical channels signaling procedures of Recommendation H.245, which are also used by recommendation H.310 for ATM networks (summary page ii). The H.323 recommendation is used to connect homogeneous networks, such as IP and ATM, to allow times sensitive data to be sent across various networks (fig. 1, pg. 2). The system of Keshav could be modified so that the signaling used to setup the connections between the source and destination gateways in the connection manager follows the H.323 protocol. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323 signaling. One of ordinary skill in the art would have been motivated to do this since H.323 is designed to transmit time-sensitive data across networks that do not provide quality of service guarantees.

- Referring to claim 20, Keshav discloses a method for setting up an ATM call over an IP backbone network (Fig. 4), said method comprising the steps of: receiving an ATM signaling cell at a source gateway interconnected to the IP backbone network, the ATM signaling cell including an ATM destination address, a virtual channel information element and a virtual path element (ATM cells inherently have VPI/VCI information): setting up a connection between said source gateway and destination gateway by the connection manager (controller) interconnected to the IP backbone network (col. 8, lns. 5-53); transmitting a setup message for translating the virtual channel information element and the virtual path information element from the source gateway to a destination gateway (col. 9, lns. 20-53). Keshav does not expressly disclose transmitting a location request message for requesting a location from said controller by the source gateway. The H.323 standard teaches that H.323 was developed to transmit multimedia information over networks that do not provide guaranteed quality of service, such as the Internet.



Art Unit: 2697

The Internet is used to transport IP packets. A type of network that does have quality of service guarantees is ATM. H.323 terminals are used to carry time sensitive information, such as real-time voice, data, and video. H.323 makes use of the logical channels signaling procedures of Recommendation H.245, which are also used by recommendation H.310 for ATM networks (summary page ii). The H.323 recommendation is used to connect homogeneous networks, such as IP and ATM, to allow times sensitive data to be sent across various networks (fig. 1, pg. 2). In H.323, the Gatekeeper (controller) discovers the endpoint location. An endpoint that has an alias address (pg. 29, 7.1.3, alias address), when the endpoint would like to determine its transport address the endpoint issues a location request message to its gatekeeper. The gatekeeper responds with a message containing the Transport Address of the endpoints call signaling channel (pg. 32-33, 7.2.3 Endpoint Location). The system of Keshav could be modified so that the signaling used to setup the connections between the source and destination gateways in the connection manager follows the H.323 protocol. The connection manager would take on the role of the gatekeeper. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323 signaling. One of ordinary skill in the art would have been motivated to do this since H.323 is designed to transmit time-sensitive data across networks that do not provide quality of service guarantees.

- Referring to claim 21, Keshav discloses a system for transporting ATM cells over an IP backbone network, the ATM cells inherently including an ATM destination address (Fig. 4, col. 2, lns. 59-col. 3, lns. 2), the system comprising: a source gateway interconnected to the IP backbone network, said ATM source gateway with an encapsulator operable to encapsulate ATM cells into IP packets (col. 6, lns. 40-50), wherein said source gateway transmits an IP

Art Unit: 2697

signaling message to said connection manager (controller) upon receipt of an ATM signaling message desiring to setup a connection over the IP network (col. 8, lns. 35-55); and wherein the ATM signaling message is an ATM UNI signaling message (col. 6, lns. 5-13). The connection manager uses IP signaling messages sent over the IP network to setup a connection between the source and destination gateways. The connection manager interfaces with an ATM network that the ATM forum UNI, so it inherently uses ATM UNI signaling. Keshav does not expressly disclose that the received ATM UNI signaling message follows the H.323 protocol. The H.323 standard teaches that H.323 was developed to transmit multimedia information over networks that do not provide guaranteed quality of service, such as the Internet. The Internet is used to transport IP packets. A type of network that does have quality of service guarantees is ATM. H.323 terminals are used to carry time sensitive information, such as real-time voice, data, and video. H.323 makes use of the logical channels signaling procedures of Recommendation H.245, which are also used by recommendation H.310 for ATM networks (summary page ii). The H.323 recommendation is used to connect homogeneous networks, such as IP and ATM, to allow time sensitive data to be sent across connectionless networks (fig. 1, pg. 2). The system of Keshav could be modified so that the ATM UNI signaling message used to initiate the setup of connections between the source and destination gateways in the connection manager over the IP network follows the H.323 protocol. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Keshav, with H.323 signaling. One of ordinary skill in the art would have been motivated to do this since H.323 is designed to transmit time-sensitive data across networks that do not provide quality of service guarantees.

Art Unit: 2697

- Referring to claim 28, Keshav discloses the method of claim 20, further comprising the step of: transmitting a register message for registering the ATM destination address for translation from the ATM address to an IP address at the connection manager (controller, col. 9, lns. 20-53).

- Referring to claim 29, Keshav discloses the method of claim 20, further comprising the steps of: transmitting an alert message from a destination gateway to the source gateway; and transmitting a connect message from the destination gateway to the source gateway (col. 8, lns. 61-col. 9, lns. 10).

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keshav in view of Civanlar et al (USP 6,385,193). Referring to claim 17, Keshav discloses the method of claim 16, but does not expressly disclose wherein the signaling message to the destination gateway uses Q.2931 signaling format. Civanlar discloses that Q.2931 signaling is used for ATM networks (col. 2, lns. 44-63). The system of Keshav is used to send ATM signals across an IP network. The system of Keshav could be modified so that the signaling received from the ATM network, uses Q.2931 signaling. One of ordinary skill in the art would have been motivated to do this since Q.2931 signaling is a standardized call signaling format for ATM networks.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 3, 4, 7-10, 13-17, and 20-29 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2697

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Oda et al, USP 6,522,667. *Network Interworking Device for IP network/ATM Network.*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M Swickhamer whose telephone number is (703) 306.4820. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703) 305.4798. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305.3900.

CMS  
August 26, 2003

  
RICKY NGO  
PRIMARY EXAMINER